



CASH & ASSOCIATES  
Engineering and Architecture

Client: City of Santa Barbara Waterfront Department  
P.O. Box 1990  
Santa Barbara, CA 93102

Mr. Karl Treiberg

Date: September 22, 2006

Subject: MARINA ONE DOCK  
EVALUATION  
SANTA BARBARA, CALIFORNIA  
(C&A Project No. 6452.00)  
D. Connors, #E15953

Cash and Associates has been contracted to provide an evaluation of the existing Marina One facility and the 2000 engineering replacement report by Moffatt and Nichol (M&N) and the City of Santa Barbara (SB) Capital Improvement Project (CIP) report. Based on the review of the reports and an on-site visual inspection and observation, the following is a summary of our findings and recommendations for the replacement project.

## General

The marina was constructed in the mid-1970's and is approximately 30 years old. It is a concrete dock system with a polystyrene foam floatation structure. The fingers are connected to the main headwalk by a ½" threaded insert. The guide piles are 14" round diameter, prestressed concrete. In 1998, an extension to Marina 1 was constructed at the end of the existing A thru P fingers comprising of three new finger docks, Q, R and S, and a restroom (Figure 1). The scope of this work includes the 30-year-old dock and does not include fingers Q, R and S.

Both the M&N and SB reports recommend replacement of Marina 1. However, the phasing of



**Figure 1**

*Transition between Fingers A thru P to  
Fingers Q thru S.*



**Figure 2**

*General condition of concrete dock. Repair  
patching was noted throughout.*

the construction between the two reports differs. M&N recommends a phased replacement of the docks including the main head walk and associated finger docks. SB recommends a replacement of the main head walk as the first phase, then, in subsequent phases, replacement of the finger docks.

The condition assessment of Marina 1 began with a site visit for the purpose of reviewing the original construction drawings for the marina and visually inspecting the existing marina components, which included the concrete docks, utility lines, pile guides and above water inspection of the guidepiles. This inspection was performed by Randy Mason and David Connors of Cash & Associates on June 21, 2006.



**Figure 3**  
*Example of dock repair patch.*

### **Observations of Existing Conditions**

The concrete docks at Fingers “A” through “O” and the main headwalk appear to be in fair to poor condition. Spalls, cracks, and surface stains are prevalent throughout the entire dock system. Multiple cracks and patched areas were seen extensively throughout the majority of the deck area (Figures 2 & 3). Apparent previous damage to the cleats (Figure 4) was evident by the patch work around the area of the cleat. The waler is showing signs of age and extensive use (Figure 5), further illustrating the compromised condition and age of the dock components.



**Figure 4**  
*Previous Cleat Damage*

An above water inspection of the prestressed concrete piles showed that the piles appeared to be in good shape and should have a remaining life of 30-40 years.

The utilities including power, telephone, domestic and fire water (combined) and sewer are routed underneath the waler, adjacent to the docks (Figure 6). Five distribution transformers are located at the center of the main headwalk, adjacent to the docks they are serving.

## Conclusions and Recommendations

Cash & Associates concurs with the Santa Barbara Marina One CIP replacement report with regard to the extent of dock rehabilitation required and agree that the first phase of work should be the replacement of the main headwalk. Furthermore, it is suggested that all landside utilities associated with Marina 1 be upgraded under the headwalk replacement phase and routed through the permanent infrastructure created by the new headwalk.

Fingers A through P should be replaced with new floats and utilities similar to existing Fingers Q, R, and S in subsequent phases.

Although the report states that each of the fingers should be addressed in 3 to 5 year increments after the replacement of the headwalk, it is Cash and Associates opinion that this replacement schedule should be accelerated. The existing marina is approximately 30 years old and structures of this type normally have a life span of 40 years. Therefore, the marina's remaining life span in its current condition is no more than 10-12 years. We recommend that all replacement work be completed within this timeframe.

## Recommended Construction Phasing Plan

The phasing of dock replacement primarily follows the layout of the docks from waterside (east) toward landside (west) and is recommended as follows in order to minimize disruption of daily facility activities and access, and for capital cost control purposes:



**Figure 5**  
*General Condition of Water*



**Figure 6**  
*Utility Routing*

- Phase 1: Main Headwalk, Landside  
Utilities, Gangway
- Phase 2: Fingers "O" and "P"
- Phase 3: Finger "N"
- Phase 4: Fingers "L" and "M"
- Phase 5: Fingers "J" and "K"
- Phase 6: Fingers "H" and "I"
- Phase 7: Finger "F"
- Phase 8: Finger "E" and "G"
- Phase 9: Fingers "C" and "D"
- Phase 10: Finger "A" and "B"

### **Order of Magnitude Cost Estimate**

The order of magnitude construction cost estimate assumes the Marina layout remains the same and the existing concrete piles can be reused for the new marina and are structurally sound.

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Prepared By: DAC  
Checked By : RHM  
Date : 9/22/2006

<b>Sub-Total</b>		\$1,227,000
<b>&amp;P (Percent) :</b>	<b>10</b>	\$122,700
<b>Sub-Total</b>		\$1,349,700
<b>ncy (Percent) :</b>	<b>10</b>	\$134,970
<b>struction Total:</b>		\$1,484,670
<b>Soft Costs:</b>	<b>10</b>	\$134,970
<b>Grand Total:</b>		\$1,619,640

1. 2nd quarter of 2006 pricing
2. Actual bids could range between 10% lower or higher than estimate, based on construction industry conditions at the time of bidding.
3. Soft Costs: (% of ConstrCost)
  - Design (3% to 5%)
  - Permits (1% to 1.5%)
  - Construction Surveillance (2% to 3%)
  - Inspections/Testing (0.5% to 1%)
4. Escalation estimated at 5% yearly.

# CASH & ASSOCIATES

## ORDER OF MAGNITUDE ESTIMATE OF PROBABLE CONSTRUCTION COST

Client: City of Santa Barbara  
 Project: Marina 1  
Phase 2 - Fingers O and P

Job No.: 6452.00  
 Phase : \_\_\_\_\_  
 File : \_\_\_\_\_

Prepared By: DAC  
 Checked By : RHM  
 Date : 9/22/2006

Div	Description	Qty	Units	Unit	Amount	Subcontract Cost		TOTAL
						Unit	Amount	
	<b>Mobilization/Demobilization</b>	<u>1</u>	ls		\$0	<u>\$20,000.00</u>	\$20,000	\$20,000
	<b>Demolition</b>							
	Docks	<u>11524</u>	sf		\$0	<u>\$7.50</u>	\$86,430	\$86,430
	<b>New Docks + accessories</b>							
	Finger Headwalks	<u>4544</u>	sf		\$0	<u>\$55.00</u>	\$249,920	\$249,920
	Fingers	<u>6980</u>	sf		\$0	<u>\$44.00</u>	\$307,120	\$307,120
	<b>Landside Utilities</b>							
	Electrical System	<u>36</u>	ea		\$0	<u>\$2,500.00</u>	\$90,000	\$90,000
	Mechanical System	<u>36</u>	ea		\$0	<u>\$700.00</u>	\$25,200	\$25,200
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0

### Costing Basis:

1. 2nd quarter of 2006 pricing
2. Actual bids could range between 10% lower or higher than estimate, based on construction industry conditions at the time of bidding.
3. Soft Costs: (% of ConstrCost)
  - Design (3% to 5%)
  - Permits (1% to 1.5%)
  - Construction Surveillance (2% to 3%)
  - Inspections/Testing (0.5% to 1%)
4. Escalation estimated at 5% yearly.

<b>Sub-Total</b>		\$778,670
<b>General Contractor OH&amp;P (Percent) :</b>	<u>10</u>	\$77,867
<b>Sub-Total</b>		\$856,537
<b>Contingency (Percent) :</b>	<u>10</u>	\$85,654
<b>Construction Total:</b>		\$942,191
<b>Soft Costs:</b>	<u>10</u>	\$85,654
<b>Grand Total:</b>		\$1,027,844



# CASH & ASSOCIATES

## ORDER OF MAGNITUDE ESTIMATE OF PROBABLE CONSTRUCTION COST

Client: City of Santa Barbara  
 Project: Marina 1  
Phase 3 - Finger N

Job No.: 6452.00  
 Phase :                       
 File :                     

Prepared By: DAC  
 Checked By : RHM  
 Date : 9/22/2006

Div	Description	Qty	Units	Unit	Amount	Subcontract Cost		TOTAL
						Unit	Amount	
	<b>Mobilization/Demobilization</b>	<u>1</u>	ls		\$0	<u>\$12,000.00</u>	\$12,000	\$12,000
	<b>Demolition</b>							
	Docks	<u>5800</u>	sf		\$0	<u>\$7.50</u>	\$43,500	\$43,500
	<b>New Docks + accessories</b>							
	Finger Headwalks	<u>2800</u>	sf		\$0	<u>\$55.00</u>	\$154,000	\$154,000
	Fingers	<u>3000</u>	sf		\$0	<u>\$44.00</u>	\$132,000	\$132,000
	<b>Landside Utilities</b>							
	Electrical System	<u>26</u>	ea		\$0	<u>\$2,500.00</u>	\$65,000	\$65,000
	Mechanical System	<u>26</u>	ea		\$0	<u>\$700.00</u>	\$18,200	\$18,200
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0

### Costing Basis:

1. 2nd quarter of 2006 pricing
2. Actual bids could range between 10% lower or higher than estimate, based on construction industry conditions at the time of bidding.
3. Soft Costs: (% of ConstrCost)
  - Design (3% to 5%)
  - Permits (1% to 1.5%)
  - Construction Surveillance (2% to 3%)
  - Inspections/Testing (0.5% to 1%)
4. Escalation estimated at 5% yearly.

<b>Sub-Total</b>		\$424,700
<b>General Contractor OH&amp;P (Percent) :</b>	<u>10</u>	\$42,470
<b>Sub-Total</b>		\$467,170
<b>Contingency (Percent) :</b>	<u>10</u>	\$46,717
<b>Construction Total:</b>		\$513,887
<b>Soft Costs:</b>	<u>10</u>	\$46,717
<b>Grand Total:</b>		\$560,604

# CASH & ASSOCIATES

## ORDER OF MAGNITUDE ESTIMATE OF PROBABLE CONSTRUCTION COST

Client: City of Santa Barbara  
 Project: Marina 1  
Phase 4 - Fingers L and M

Job No.: 6452.00  
 Phase :                       
 File :                     

Prepared By: DAC  
 Checked By : RHM  
 Date : 9/22/2006

Div	Description	Qty	Units	Unit	Amount	Subcontract Cost		TOTAL
						Unit	Amount	
	<b>Mobilization/Demobilization</b>	<u>1</u>	ls		\$0	<u>\$20,000.00</u>	\$20,000	\$20,000
	<b>Demolition</b>							
	Docks	<u>10784</u>	sf		\$0	<u>\$7.50</u>	\$80,880	\$80,880
	<b>New Docks + accessories</b>							
	Finger Headwalks	<u>4984</u>	sf		\$0	<u>\$55.00</u>	\$274,120	\$274,120
	Fingers	<u>5800</u>	sf		\$0	<u>\$44.00</u>	\$255,200	\$255,200
	<b>Landside Utilities</b>							
	Electrical System	<u>44</u>	ea		\$0	<u>\$2,500.00</u>	\$110,000	\$110,000
	Mechanical System	<u>44</u>	ea		\$0	<u>\$700.00</u>	\$30,800	\$30,800
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0

### Costing Basis:

1. 2nd quarter of 2006 pricing
2. Actual bids could range between 10% lower or higher than estimate, based on construction industry conditions at the time of bidding.
3. Soft Costs: (% of ConstrCost)
  - Design (3% to 5%)
  - Permits (1% to 1.5%)
  - Construction Surveillance (2% to 3%)
  - Inspections/Testing (0.5% to 1%)
4. Escalation estimated at 5% yearly.

<b>Sub-Total</b>		\$771,000
<b>General Contractor OH&amp;P (Percent) :</b>	<u>10</u>	\$77,100
<b>Sub-Total</b>		\$848,100
<b>Contingency (Percent) :</b>	<u>10</u>	\$84,810
<b>Construction Total:</b>		\$932,910
<b>Soft Costs:</b>	<u>10</u>	\$84,810
<b>Grand Total:</b>		\$1,017,720



# CASH & ASSOCIATES

## ORDER OF MAGNITUDE ESTIMATE OF PROBABLE CONSTRUCTION COST

Client: City of Santa Barbara  
 Project: Marina 1  
Phase 5 - Fingers J and K

Job No.: 6452.00  
 Phase : \_\_\_\_\_  
 File : \_\_\_\_\_

Prepared By: DAC  
 Checked By : RHM  
 Date : 9/22/2006

Div	Description	Qty	Units	Unit	Amount	Subcontract Cost		TOTAL
						Unit	Amount	
	<b>Mobilization/Demobilization</b>	<u>1</u>	ls		\$0	<u>\$20,000.00</u>	\$20,000	\$20,000
	<b>Demolition</b>							
	Docks	<u>10092</u>	sf		\$0	<u>\$7.50</u>	\$75,690	\$75,690
	<b>New Docks + accessories</b>							
	Finger Headwalks	<u>4752</u>	sf		\$0	<u>\$55.00</u>	\$261,360	\$261,360
	Fingers	<u>5340</u>	sf		\$0	<u>\$44.00</u>	\$234,960	\$234,960
	<b>Landside Utilities</b>							
	Electrical System	<u>44</u>	ea		\$0	<u>\$2,500.00</u>	\$110,000	\$110,000
	Mechanical System	<u>44</u>	ea		\$0	<u>\$700.00</u>	\$30,800	\$30,800
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0

### Costing Basis:

1. 2nd quarter of 2006 pricing
2. Actual bids could range between 10% lower or higher than estimate, based on construction industry conditions at the time of bidding.
3. Soft Costs: (% of ConstrCost)
  - Design (3% to 5%)
  - Permits (1% to 1.5%)
  - Construction Surveillance (2% to 3%)
  - Inspections/Testing (0.5% to 1%)
4. Escalation estimated at 5% yearly.

<b>Sub-Total</b>		\$732,810
<b>General Contractor OH&amp;P (Percent) :</b>	<u>10</u>	\$73,281
<b>Sub-Total</b>		\$806,091
<b>Contingency (Percent) :</b>	<u>10</u>	\$80,609
<b>Construction Total:</b>		\$886,700
<b>Soft Costs:</b>	<u>10</u>	\$80,609
<b>Grand Total:</b>		\$967,309

# CASH & ASSOCIATES

## ORDER OF MAGNITUDE ESTIMATE OF PROBABLE CONSTRUCTION COST

Client: City of Santa Barbara  
 Project: Marina 1  
Phase 6 - Fingers H and I

Job No.: 6452.00  
 Phase : \_\_\_\_\_  
 File : \_\_\_\_\_

Prepared By: DAC  
 Checked By : RHM  
 Date : 9/22/2006

Div	Description	Qty	Units	Unit	Amount	Subcontract Cost		TOTAL
						Unit	Amount	
	<b>Mobilization/Demobilization</b>	<u>1</u>	ls		\$0	<u>\$20,000.00</u>	\$20,000	\$20,000
	<b>Demolition</b>							
	Docks	<u>9376</u>	sf		\$0	<u>\$7.50</u>	\$70,320	\$70,320
	<b>New Docks + accessories</b>							
	Finger Headwalks	<u>4536</u>	sf		\$0	<u>\$55.00</u>	\$249,480	\$249,480
	Fingers	<u>4840</u>	sf		\$0	<u>\$44.00</u>	\$212,960	\$212,960
	<b>Landside Utilities</b>							
	Electrical System	<u>42</u>	ea		\$0	<u>\$2,500.00</u>	\$105,000	\$105,000
	Mechanical System	<u>42</u>	ea		\$0	<u>\$700.00</u>	\$29,400	\$29,400
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0

### Costing Basis:

1. 2nd quarter of 2006 pricing
2. Actual bids could range between 10% lower or higher than estimate, based on construction industry conditions at the time of bidding.
3. Soft Costs: (% of ConstrCost)
  - Design (3% to 5%)
  - Permits (1% to 1.5%)
  - Construction Surveillance (2% to 3%)
  - Inspections/Testing (0.5% to 1%)
4. Escalation estimated at 5% yearly.

<b>Sub-Total</b>		\$687,160
<b>General Contractor OH&amp;P (Percent) :</b>	<u>10</u>	\$68,716
<b>Sub-Total</b>		\$755,876
<b>Contingency (Percent) :</b>	<u>10</u>	\$75,588
<b>Construction Total:</b>		\$831,464
<b>Soft Costs:</b>	<u>10</u>	\$75,588
<b>Grand Total:</b>		\$907,051

# CASH & ASSOCIATES

## ORDER OF MAGNITUDE ESTIMATE OF PROBABLE CONSTRUCTION COST

Client: City of Santa Barbara  
 Project: Marina 1  
Phase 7 - Finger F

Job No.: 6452.00  
 Phase : \_\_\_\_\_  
 File : \_\_\_\_\_

Prepared By: DAC  
 Checked By : RHM  
 Date : 9/22/2006

Div	Description	Qty	Units	Unit	Amount	Subcontract Cost		TOTAL
						Unit	Amount	
	<b>Mobilization/Demobilization</b>	<u>1</u>	ls		\$0	<u>\$8,000.00</u>	\$8,000	\$8,000
	<b>Demolition</b>							
	Docks	<u>3456</u>	sf		\$0	<u>\$7.50</u>	\$25,920	\$25,920
	<b>New Docks + accessories</b>							
	Finger Headwalks	<u>1356</u>	sf		\$0	<u>\$55.00</u>	\$74,580	\$74,580
	Fingers	<u>2100</u>	sf		\$0	<u>\$44.00</u>	\$92,400	\$92,400
	<b>Landside Utilities</b>							
	Electrical System	<u>16</u>	ea		\$0	<u>\$2,500.00</u>	\$40,000	\$40,000
	Mechanical System	<u>16</u>	ea		\$0	<u>\$700.00</u>	\$11,200	\$11,200
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0

### Costing Basis:

1. 2nd quarter of 2006 pricing
2. Actual bids could range between 10% lower or higher than estimate, based on construction industry conditions at the time of bidding.
3. Soft Costs: (% of ConstrCost)
  - Design (3% to 5%)
  - Permits (1% to 1.5%)
  - Construction Surveillance (2% to 3%)
  - Inspections/Testing (0.5% to 1%)
4. Escalation estimated at 5% yearly.

<b>Sub-Total</b>		\$252,100
<b>General Contractor OH&amp;P (Percent) :</b>	<u>10</u>	\$25,210
<b>Sub-Total</b>		\$277,310
<b>Contingency (Percent) :</b>	<u>10</u>	\$27,731
<b>Construction Total:</b>		\$305,041
<b>Soft Costs:</b>	<u>10</u>	\$27,731
<b>Grand Total:</b>		\$332,772

# CASH & ASSOCIATES

## ORDER OF MAGNITUDE ESTIMATE OF PROBABLE CONSTRUCTION COST

Client: City of Santa Barbara  
 Project: Marina 1  
Phase 8 - Fingers E and G

Job No.: 6452.00  
 Phase : \_\_\_\_\_  
 File : \_\_\_\_\_

Prepared By: DAC  
 Checked By : RHM  
 Date : 9/22/2006

Div	Description	Qty	Units	Unit	Amount	Subcontract Cost		TOTAL
						Unit	Amount	
	<b>Mobilization/Demobilization</b>	<u>1</u>	ls		\$0	<u>\$10,000.00</u>	\$10,000	\$10,000
	<b>Demolition</b>							
	Docks	<u>5292</u>	sf		\$0	<u>\$7.50</u>	\$39,690	\$39,690
	<b>New Docks + accessories</b>							
	Finger Headwalks	<u>2292</u>	sf		\$0	<u>\$55.00</u>	\$126,060	\$126,060
	Fingers	<u>3000</u>	sf		\$0	<u>\$44.00</u>	\$132,000	\$132,000
	<b>Landside Utilities</b>							
	Electrical System	<u>32</u>	ea		\$0	<u>\$2,500.00</u>	\$80,000	\$80,000
	Mechanical System	<u>32</u>	ea		\$0	<u>\$700.00</u>	\$22,400	\$22,400
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0

### Costing Basis:

1. 2nd quarter of 2006 pricing
2. Actual bids could range between 10% lower or higher than estimate, based on construction industry conditions at the time of bidding.
3. Soft Costs: (% of ConstrCost)
  - Design (3% to 5%)
  - Permits (1% to 1.5%)
  - Construction Surveillance (2% to 3%)
  - Inspections/Testing (0.5% to 1%)
4. Escalation estimated at 5% yearly.

<b>Sub-Total</b>		\$410,150
<b>General Contractor OH&amp;P (Percent) :</b>	<u>10</u>	\$41,015
<b>Sub-Total</b>		\$451,165
<b>Contingency (Percent) :</b>	<u>10</u>	\$45,117
<b>Construction Total:</b>		\$496,282
<b>Soft Costs:</b>	<u>10</u>	\$45,117
<b>Grand Total:</b>		\$541,398

# CASH & ASSOCIATES

## ORDER OF MAGNITUDE ESTIMATE OF PROBABLE CONSTRUCTION COST

Client: City of Santa Barbara  
 Project: Marina 1  
Phase 9 - Fingers C and D

Job No.: 6452.00  
 Phase :                       
 File :                     

Prepared By: DAC  
 Checked By : RHM  
 Date : 9/22/2006

Div	Description	Qty	Units	Unit	Amount	Subcontract Cost		TOTAL
						Unit	Amount	
	<b>Mobilization/Demobilization</b>	<u>1</u>	ls		\$0	<u>\$10,000.00</u>	\$10,000	\$10,000
	<b>Demolition</b>							
	Docks	<u>5378</u>	sf		\$0	<u>\$7.50</u>	\$40,335	\$40,335
	<b>New Docks + accessories</b>							
	Finger Headwalks	<u>2178</u>	sf		\$0	<u>\$55.00</u>	\$119,790	\$119,790
	Fingers	<u>3200</u>	sf		\$0	<u>\$44.00</u>	\$140,800	\$140,800
	<b>Landside Utilities</b>							
	Electrical System	<u>28</u>	ea		\$0	<u>\$2,500.00</u>	\$70,000	\$70,000
	Mechanical System	<u>28</u>	ea		\$0	<u>\$700.00</u>	\$19,600	\$19,600
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0

### Costing Basis:

1. 2nd quarter of 2006 pricing
2. Actual bids could range between 10% lower or higher than estimate, based on construction industry conditions at the time of bidding.
3. Soft Costs: (% of ConstrCost)
  - Design (3% to 5%)
  - Permits (1% to 1.5%)
  - Construction Surveillance (2% to 3%)
  - Inspections/Testing (0.5% to 1%)
4. Escalation estimated at 5% yearly.

<b>Sub-Total</b>		\$400,525
<b>General Contractor OH&amp;P (Percent) :</b>	<u>10</u>	\$40,053
<b>Sub-Total</b>		\$440,578
<b>Contingency (Percent) :</b>	<u>10</u>	\$44,058
<b>Construction Total:</b>		\$484,635
<b>Soft Costs:</b>	<u>10</u>	\$44,058
<b>Grand Total:</b>		\$528,693

# CASH & ASSOCIATES

## ORDER OF MAGNITUDE ESTIMATE OF PROBABLE CONSTRUCTION COST

Client: City of Santa Barbara  
 Project: Marina 1  
Phase 10 - Fingers A and B

Job No.: 6452.00  
 Phase : \_\_\_\_\_  
 File : \_\_\_\_\_

Prepared By: DAC  
 Checked By : RHM  
 Date : 9/22/2006

Div	Description	Qty	Units	Unit	Amount	Subcontract Cost		TOTAL
						Unit	Amount	
	<b>Mobilization/Demobilization</b>	<u>1</u>	ls		\$0	<u>\$10,000.00</u>	\$10,000	\$10,000
	<b>Demolition</b>							
	Docks	<u>4072</u>	sf		\$0	<u>\$7.50</u>	\$30,540	\$30,540
	<b>New Docks + accessories</b>							
	Finger Headwalks	<u>1632</u>	sf		\$0	<u>\$55.00</u>	\$89,760	\$89,760
	Fingers	<u>2440</u>	sf		\$0	<u>\$44.00</u>	\$107,360	\$107,360
	<b>Landside Utilities</b>							
	Electrical System	<u>22</u>	ea		\$0	<u>\$2,500.00</u>	\$55,000	\$55,000
	Mechanical System	<u>22</u>	ea		\$0	<u>\$700.00</u>	\$15,400	\$15,400
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0
					\$0		\$0	\$0

### Costing Basis:

1. 2nd quarter of 2006 pricing
2. Actual bids could range between 10% lower or higher than estimate, based on construction industry conditions at the time of bidding.
3. Soft Costs: (% of ConstrCost)
  - Design (3% to 5%)
  - Permits (1% to 1.5%)
  - Construction Surveillance (2% to 3%)
  - Inspections/Testing (0.5% to 1%)
4. Escalation estimated at 5% yearly.

<b>Sub-Total</b>		\$308,060
<b>General Contractor OH&amp;P (Percent) :</b>	<u>10</u>	\$30,806
<b>Sub-Total</b>		\$338,866
<b>Contingency (Percent) :</b>	<u>10</u>	\$33,887
<b>Construction Total:</b>		\$372,753
<b>Soft Costs:</b>	<u>10</u>	\$33,887
<b>Grand Total:</b>		\$406,639